REMARKS

Originally submitted claims 1, 3, 6, 7, and 11-13 have been rejected under 35 U.S.C. 102(e) as anticipated by Matsumoto et al. Patent 6,545,739, and claims 2, 4, 5, 8-10, and 14-20 have been rejected under 35 U.S.C. 103(a) as obvious over Matsumoto in view of Kitamura et al. Claims 21-32 are cancelled as being directed to a non-elected invention. Claim 2 has been cancelled. New claims 33 and 34 have been added and are fully supported by the specification.

The 35 U.S.C. §102 Rejection

Matsumoto has been cited in rejecting claims 1, 3, 6, 7, and 11-13 as anticipated. Matsumoto teaches a liquid crystal embedded in a polymer. There is no teaching in this reference of "liquid crystals disposed in" holes in "a metal-oxide matrix having a multiplicity of holes therein," as called for in claim 1, as amended.

There is simply no structural similarity between liquid crystal droplets embedded in a light transmissive "medium such as a polymer or silica glass" (Matsumoto, Abstract), and a metal-oxide matrix formed with holes in which the liquid crystals reside. Whether or not the filter of Matsumoto functions in a manner similar to Applicant's device is not relevant in view of the different structures chosen to accomplish a Fabry-Perot etalon type tunable wavelength-selective filter.

Reference is made to Applicant's specification, pages 2-4, for a discussion of the shortcomings of polymer dispersed liquid crystal (PDLC) (Matsumoto), and other efforts to make tunable optical filters, and the advantages of the present invention.

The 35 U.S.C. §103 Rejection

Kitamura was added to Matsumoto for rejecting claims 2, 4, 5, 8-10, and 14-20. Mr. Simkovic stated that "while Matsumoto does not specifically mention that the matrix can be a metal-oxide glass, such a material is taught by Katamura for similar LCD type device." Applicant respectfully traverses this rejection.

In the first place, Matsumoto does not teach any kind of matrix, metal-oxide or otherwise. Secondly, Kitamura does not teach using a metal-oxide matrix to provide holes in which liquid crystal droplets reside to form a tunable Fabry-Perot filter. More particularly, Kitamura is directed only to a liquid crystal display element, completely unrelated to Fabry-Perot filters. Thus the applied prior art references do not teach or suggest all of the claim limitations.

It should be noted that Matsumoto acknowledges and specifically distinguishes display devices using liquid crystals (column 5, lines 36-44), thus teaching away from any combination with display devices such as Kitamura. Clearly, the references fail to suggest or to provide any motivation for their combination. There is no rational way that their teachings can be combined, nor is there any reasonable expectation of success if they were combined. Consequently, the Examiner has not established a *prima facie* case of obviousness (MPEP 2142, 2143).

CONCLUSION

In view of the above amendments and discussion, it is believed that all of the claims in this application are in condition for allowance and early passage to issue is requested.

Respectfully submitted,

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